SECTION 07 95 00

EXPANSION CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Expansion joint assemblies.

B. Fire-rated joint cover assemblies.

1.02 RELATED SECTIONS

A. Expansion and isolation joint fillers and sealants for concrete slabs and paving are specified in Section 03 15 00 - Concrete Accessories.

B. Control joints for unit masonry are specified in Section 04 22 00 - Concrete Unit Masonry.

C. Expansion joints in roofing are specified in the individual roofing sections under Division 7, Thermal and Moisture Protection, as applicable.

D. Sealants for sealing of perimeter joints at openings in walls and for joints at abutting materials are specified in Section 07 90 00 - Joint Protection.

E. Control and expansion joints for portland cement plaster are specified in Section 09 24 11 - Portland Cement Plaster.

1.03 MEASUREMENT AND PAYMENT

A. Measurement: Expansion control devices will be measured for payment by the lump-sum method, acceptably fabricated and installed.

B. Payment: Expansion control devices will be paid for at the indicated Contract lump-sum price as indicated in the Bid Schedule of the Bid Form.

1.04 REFERENCES

A. American Society for Testing and Materials (ASTM):

1.	ASTM A240	Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels
2.	ASTM A480	Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet and Strip
3.	ASTM B221	Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
4.	ASTM C509	Specification for Elastomeric Cellular Preformed Gasket and Sealing Material

5.	ASTM C834	Specification for Latex Sealants
6.	ASTM C864	Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers
7.	ASTM C920	Specification for Elastomeric Joint Sealants
8.	ASTM C1085	Specification for Butyl Rubber-Based Solvent-Release Sealants
9.	ASTM E119	Test Methods for Fire Tests of Building Construction & Materials
10.	ASTM E814	Test Method for Fire Tests of Through-Penetration Fire Stops
11.	ASTM F738	Specification for Stainless Steel Metric Bolts, Screws, and Studs

B. Underwriters Laboratories Inc. (UL):

1. Building Materials Directory

2. Fire Resistance Directory

C. Warnock Hersey (WH):

1. Certification and Listings Directory

1.05 SUBMITTALS

A. General: Refer to Section 01 33 00 - Submittal Procedures, and Section 01 33 23 - Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.

B. Product Data and Shop Drawings: Submit manufacturers' product data of vertical and horizontal expansion-joint closures, assemblies, seals, and sealants for review. Include installation details.

C. Fire Rating Certification: Submit copies of UL Classification or Warnock Hersey Listing for fire-rated joint covers.

PART 2 - PRODUCTS

2.01 EXPANSION JOINT ASSEMBLIES

A. Expansion joint closures and seals shall be aluminum extrusions and neoprene or silicone rubber seals of type and size to suit the construction as indicated.

B. Materials and requirements include the following:

1. Aluminum Retainers and Cover Plates: Aluminum alloy meeting requirements of ASTM B221, alloy 6063-T5, anodized, of configuration and size as indicated or recommend by the expansion-control system manufacturer.

2. Visual Seals: Dense neoprene or dense silicone synthetic rubber conforming with ASTM C864, of 70 durometer hardness, plus or minus 5.

3. Functional Seal: Closed cell neoprene synthetic rubber conforming with ASTM C509, medium density.

4. Corner Angles: Stainless steel conforming to ASTM A240 and ASTM A480, Type 304 or 316.

5. Fasteners: Stainless steel conforming to ASTM F738 or equivalent, Type 316 or equivalent 300 Series (18-8) stainless steel.

6. Sealant: Sealant for installation behind aluminum retainer, in rear pocket of aluminum retainer, and at joints, where indicated, shall conform to ASTM C834, C920, or C1085 as appropriate for the construction and exposure conditions.

2.02 FIRE-RATED JOINT COVER ASSEMBLIES

A. Requirements: Fire-rated joint covers shall have been tested in accordance with ASTM E119 and ASTM E814, including hose stream test at full rated period. Covers shall be classified by Underwriters Laboratories or listed by Warnock Hersey, or equal. Minimum fire rating shall be two hours, but not less than rating of adjacent construction. Materials shall be inorganic and shall not create smoke or contribute fuel during a fire.

1. All metal components and cover plates shall be 300 Series (18-8) stainless steel with No. 4 finish. Aluminum is not acceptable.

B. Fire Barrier: Fabricated of layers of ceramic fiber insulation and metallic insulation.

C. Flame Sealant: Sealant shall remain resilient to permit joint movement and shall, upon exposure to heat, increase in volume to resist penetration of fire through voids in construction.

D. Fireproofing: Of type required by fire rating; asbestos is not acceptable.

E. Fire-Rated Joint Covers: Fire barrier and flame sealant shall provide required fire rating.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Expansion Joint Assemblies: Install expansion-joint assemblies and engineered floor and wall seals as indicated and in accordance with the approved Shop Drawings and the manufacturer's installation instructions and recommendations.

B. Fire-Rated Joint Assemblies: Install as required to meet fire-rated design and construction. Install fire barriers and flame sealant as required to complete the installation and meet fire-rating requirements.

END OF SECTION 07 95 00